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ABSTRACT

In fall 2002, the American Institute of Physics asked the 735 physics departments, the 34 combined physics and astronomy departments, and the 37 separate astronomy departments in the United States to provide information on both their current student enrollments and the degrees they conferred in the previous academic year. Data were received from 93% of the departments, and data for nonresponding departments were estimated using survey responses from previous years. After about a decade of decline, undergraduate physics enrollment has increased. There were 4,091 physics bachelor's degrees conferred in 2001, an increase of 12% from 1999. Physics PhD production has fallen, however, for the seventh consecutive year. There were 1,157 PhDs conferred in 2001, a cumulative decline of 22% since the high in 1994. In the past 2 years, the number of African Americans receiving physics PhDs has nearly doubled. The number of students receiving astronomy bachelor's degrees in 2001 shout up 36% over the previous year, and much of this is attributable to the increase in women receiving degrees. An appendix contains three data tables. (Contains 9 figures and 14 tables.) (SLD)

Enrollments and Degrees Report

Patrick J. Mulvey and Starr Nicholson

American Institute of Physics Publication Number R-151.39

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AIP REPORT

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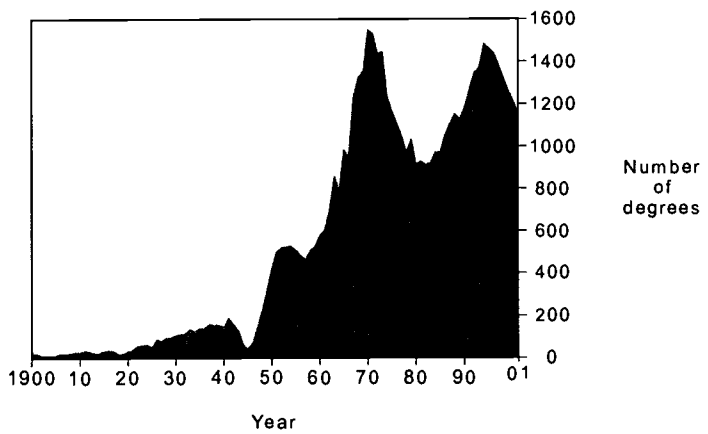
ENROLLMENTS AND DEGREES REPORT

Number of physics PhDs conferred in the United States, 1900 to 2001.



Sources: ACE (1900-1919), NAS (1920-1961), AIP (1962-2001)
AIP Statistical Research Center, Enrollments and Degrees Report.

Highlights

➢After about a decade of declines, undergraduate physics degree production has experienced significant increases in the classes of 2000 and 2001. There were 4,091 physics bachelor's degrees conferred in the class of 2001, an increase of 12% from the class of 1999. **(Figure 1)**

➢Physics PhD production has fallen for the seventh consecutive year. There were 1,157 PhD's conferred in the class of 2001, a decline of 5% from the previous year and a cumulative decline of 22% since the recent high of 1,481 in the class of 1994. **(Graph on cover page)**

➢During the last two years, the number of African-Americans receiving physics PhD's has nearly doubled from what had been the norm in earlier years. **(Table 8)**

➢Current declines in PhD production are not expected to fall to the lows of the early 1980's. PhD production is expected to bottom out in the class of 2003 and begin to rise with the class of 2005. **(Figure 6)**

➢First-year physics graduate student enrollments are up for the third consecutive year. In contrast to past enrollment increases, the current increase is totally attributable to an increase in the number of US students enrolling. **(Figure 4)**

➢The number of students receiving astronomy bachelor's degrees in the class of 2001 shot up 36% over the previous year. A great deal of the gain is attributable to the sharp increase in the number of women receiving degrees. **(Figures 8 & 9)**

BACKGROUND

Each year, the American Institute of Physics (AIP) surveys all degree-granting physics and astronomy departments in the US and Puerto Rico. In the fall of 2001, we asked the 734 physics departments, the 34 combined physics and astronomy departments and the 37 separate astronomy departments to provide information on both their current student enrollments and the degrees they conferred in the previous academic year. We received data from 93% of the departments. Data for the non-responding departments were estimated using responses to our survey in previous years and those estimated figures are included in the totals presented in this report.

Much of the departmental level data that is used to create the tables and figures in this report can be found in the "Roster of Physics Departments With Enrollment and Degree Data, 2001" and its sister publication for the astronomy departments. Both printed and electronic copies can be ordered or downloaded at no cost from the AIP's Statistical Research Center web site:
www.aip.org/statistics/trends/undtrends.htm

Table 1. Departments by highest physics degree offered, academic year 2000-2001.

	Number of Depts.	Percent of Depts.
Bachelor's-granting	514	67
Master's-granting	72	9
PhD-granting	182	24
Total	768	100%

AIP Statistical Research Center, Enrollments and Degrees Report.

UNDERGRADUATE PHYSICS ENROLLMENTS AND DEGREES

An important role for most physics departments is to provide physics course instruction at the introductory level to a wide range of majors. The 339,000 students reported in **Table 2** who took an introductory physics class are consistent with totals reported in recent years and illustrate that there is continuing, relatively stable demand from other departments for introductory physics and science instruction. The numbers in the table reflect first-term enrollments of an intro-level physics, astronomy or physical science course.

Table 2. Introductory course enrollments by type of department, academic year 2000-2001.

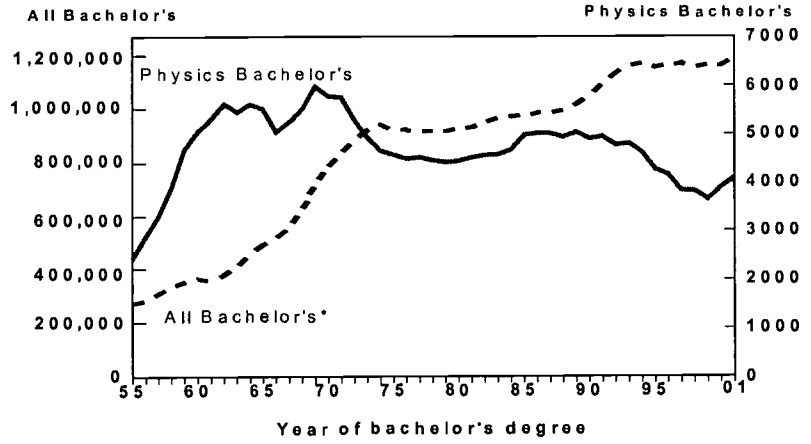
Department Type	Calculus Based	Algebra Based	Conceptual	Astronomy*	Physical Science
Bachelor's-granting	39,000	38,000	27,000	54,000	27,000
Master's-granting	17,000	17,000	15,000	24,000	7,000
PhD-granting	97,000	63,000	26,000	87,000	10,000
Total	153,000	118,000	68,000	165,000	44,000

*Astronomy course enrollments also include students from degree-granting astronomy departments, which accounted for 51,000 of the 165,000 introductory astronomy enrollments.

Note: In addition to the introductory course enrollments given above, a significant number of students take an introductory-level physics course at a two-year college. In 1996 this figure was approximately 120,000 students. (Calculus-based: 27,000, Algebra-based: 40,000, Conceptual: 19,000, Physical Science: 10,000, Other: 24,000) (*Physics in the Two-year Colleges*, Michael Neuschatz, et. al., October 1998, College Park MD: American Institute of Physics)

AIP Statistical Research Center, Enrollments and Degrees Report.

Figure 1. Physics bachelors and total bachelors produced in the US, 1955 to 2001.



AIP Statistical Research Center, Roster of Physics Departments, and
* NCES Digest of Education Statistics

These courses are offered by degree-granting physics and astronomy departments. To round out the picture, there are approximately 120,000 students who took an introductory physics course at two-year colleges in 1996, the most recent information available at that level.

After about a decade of declines, undergraduate physics degree production has been experiencing significant increases in the classes of 2000 and 2001. **Figure 1** shows physics bachelor's production over time, with a comparison of total US bachelor's degree production in all fields. The 4,091 physics bachelor's degrees conferred in the class of 2001 account for a small fraction of the 1.2 million bachelor's awarded in the US. Still the bachelor's in the class of 2001 represents a 5% increase from the previous year and a cumulative increase of 12% from the class of 1999. With junior-level enrollments continuing to climb, further increases of this magnitude are anticipated during the next couple of years.

Foreign citizens traditionally only make up a small fraction of the undergraduate physics degrees conferred in the US. In the class of 2001 only 6% of the bachelor's were non-US citizens.

Figure 2 breaks down bachelor's production by the highest degree offered by the department. As the figure shows, both the declines of the 1900's and the earlier drop of the 1970's were concentrated in departments that had graduate programs.

Figure 2. Physics bachelor's degrees awarded by department type, 1965-2001.

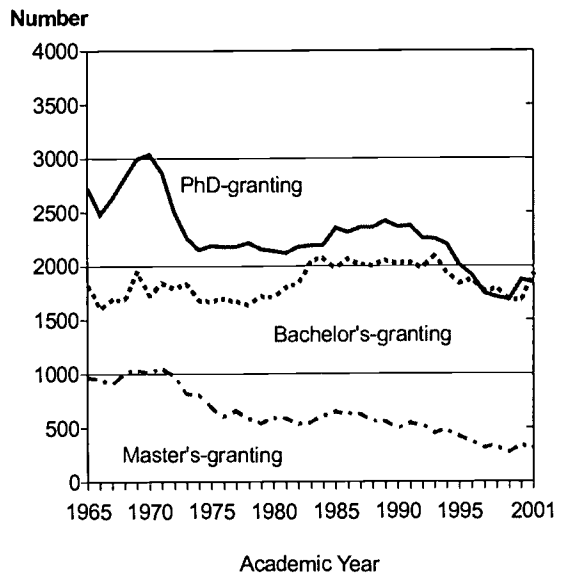


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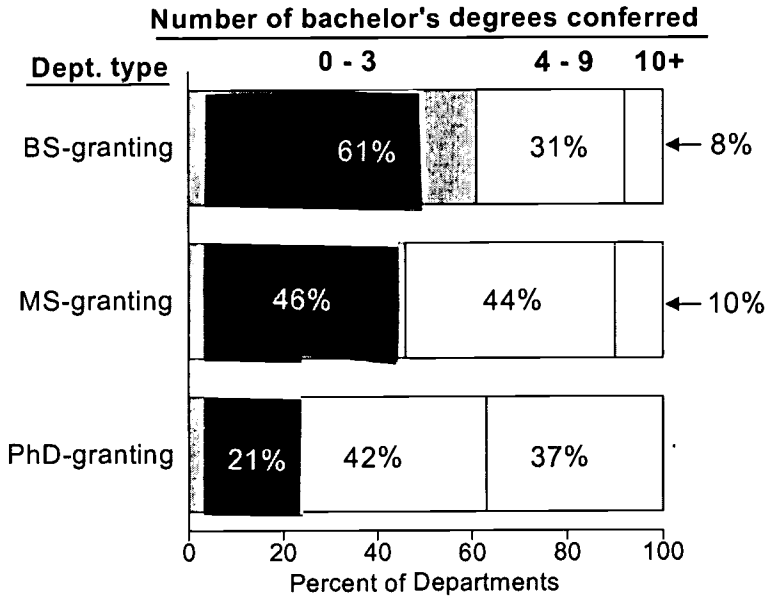
Figure 3. Number of physics bachelor's by highest physics degree offered, class of 2001.



AIP Statistical Research Center, Roster of Physics Departments.

Most of the graduate departments are much larger than their undergraduate-only counterparts (**see Figure 3**). Only 8% of the departments with a bachelor's as their highest physics degree conferred 10 or more bachelor's in the class of 2001, this compares to 37% of the doctoral-granting departments.

The average class size for the undergraduate-only departments was 3.7 degrees per department. This rises to 4.4 for the master's-granting departments and 10.6 for the doctoral-granting departments, which confer almost three times as many undergraduates per department than the bachelor's-only programs (**see Table 3**).

Although they tend to be smaller, the far greater number of bachelor's-only programs were still responsible for producing 47% of all physics bachelor's in the class of 2001.

Table 3. Size of physics bachelor's class by type of department, class of 2001.

	Degrees per Department	
Department Type	Average	Median
Bachelor's-granting	3.7	3
Master's-granting	4.4	4
PhD-granting	10.6	7

AIP Statistical Research Center, Enrollments and Degrees Report.

Table 4. Bachelor's-granting departments averaging 10 or more physics bachelor's degrees per year, classes of 1999, 2000 and 2001.

	Annual Average of Bachelor's Degrees Granted
Harvey Mudd College (CA)	19
College of Charleston (SC)	18
US Naval Academy (MD)	18
Reed College (OR)	17
US Air Force Academy (CO)	17
Bates College (ME)	15
CA Poly St U-San Luis Obispo	15
Colby College (ME)	14
Illinois St U	13
Longwood College (VA)	13
SUNY Coll-Geneseo (NY)	13
U of Wisconsin-La Crosse	13
Colorado College	12
Grinnell College (IA)	12
Gustavus Adolphus Coll (MN)	12
Pomona College (CA)	12
Saint Olaf College (MN)	12
Carleton College (MN)	11
Kalamazoo College (MI)	11
Whitman College (WA)	11
Xavier U (LA)	11
Colgate U (NY)	10
Frostburg St U (MD)	10
Grove City College (PA)	10
Lawrence U (WI)	10
Luther College (IA)	10
Middlebury College (VT)	10
U of Puget Sound (WA)	10

AIP Statistical Research Center, Enrollments and Degrees Report.

Table 5. Master's-granting departments averaging 7 or more physics bachelor's degrees per year, classes of 1999, 2000 and 2001.

	Annual Average of Bachelor's Degrees Granted
Miami U (OH)	13
CA State U - Northridge	9
CA State U - Fullerton	9
Appalachian State (NC)	8
Creighton U (NE)	8
San Jose State U (CA)	8
Southern U & A&M Coll (LA)	8
Oakland U (MI)	7
San Diego State U (CA)	7
Southwest Texas St U	7
Stephen F Austin St U (TX)	7
SUNY-Binghamton U (NY)	7
Western Illinois U	7

AIP Statistical Research Center, Enrollments and Degrees Report.

As illustrated in **Figure 3**, the number of bachelor's degrees awarded is very uneven within each type of department. **Tables 4, 5** and **6** list the departments which are responsible for producing the largest number of physics bachelor's during the last three years. The tables are organized by the highest physics degree offered by the department. The 28 departments in **Table 4** represent only 5% of all bachelor's departments but awarded 19% of all the bachelor's degrees conferred by undergraduate physics departments. Similarly, **Table 5** lists 13 departments, or 18%, of the master's-granting departments, which were responsible for conferring 55% of the bachelor's from those departments. The 23 departments in **Table 6** represent 13% of the doctoral-granting departments and 36% of all bachelor's awarded by those departments.

Table 6. PhD-granting departments averaging 20 or more physics bachelor's degrees per year, classes of 1999, 2000 and 2001.

	Annual Average of Bachelor's Degrees Granted
Harvard U (MA)	52
U of California-Berkeley	49
Brigham Young U (UT)	44
MA Inst of Tech	44
U of Washington	43
Rutgers U-Busch (NJ)	32
U of Texas-Austin	32
U of Virginia	32
California Inst of Tech	29
U of California-Los Angeles	28
U of California-San Diego	28
Ohio St U	26
U of IL-Urbana/Champaign	25
U of Arizona	24
U of Colorado-Boulder	22
Carnegie Mellon U (PA)	21
Pennsylvania St U	21
U of California-Irvine	21
U of Maryland-College Park	21
CO Sch of Mines & Tech	20
Portland St U (OR)	20
U'of California-Davis	20
U of Chicago	20

AIP Statistical Research Center, Enrollments and Degrees Report.

GRADUATE PHYSICS ENROLLMENTS

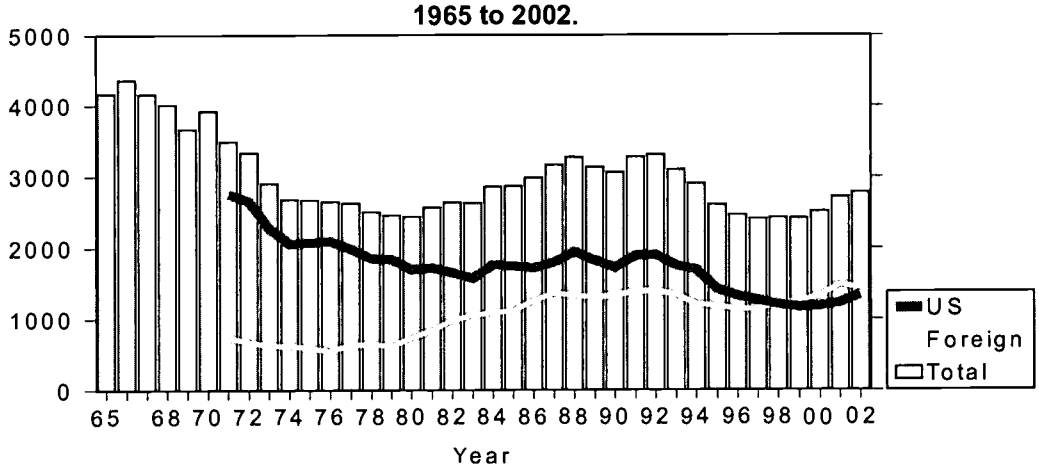
The 2001-2002 academic year marks the third consecutive year that incoming graduate student enrollments have increased. Enrollments increased 2% from the previous year and have now risen 15% since the recent low in 1998-99 **(see Figure 4)**. These increases follow a period of sharp decline in the early 1990's.

This latest increase in first-year student enrollments is also noteworthy for another reason. In recent years the proportion of non-US citizens among incoming students has steadily been increasing. In contrast, the current increase in total first-year student enrollments is solely attributable to a rise in the number of US citizens. In 2001-2002 US student enrollments increased 4% from the previous year, while foreign student enrollments dropped 3%. As a result, US students now comprised 48% of the incoming students, up from 45% the previous year.

GRADUATE PHYSICS DEGREES

The number of students who received a master's enroute (continuing at that same doctoral institution in pursuit of a PhD) in the class of 2001 has increased 19% from the previous year **(see Figure 5)**. Increases in this degree category were anticipated due to increases starting three years ago in the number of new graduate students entering these departments. Increases of this type foretell an end to the sharp decline in PhD production currently being experienced. The number of students exiting doctoral programs with a master's degree rose slightly (5%) from the previous year, while the number graduating from master's-only departments stayed relatively unchanged. Foreign citizens comprised 40% of the exiting master's in the class of 2001, similar to proportions seen in recent years.

Figure 4. First-year US and foreign graduate physics students, 1965 to 2002.



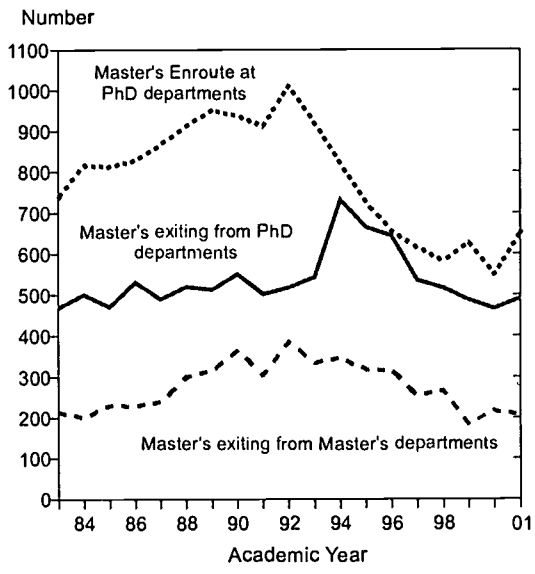
Note: A change in wording on the 2001 questionnaire resulted in more accurate data on first-year graduate students. This change was responsible for 3% of the reported 8% increase in total first-year students between 2000 and 2001.

Source: AIP Statistical Research Center, Enrollments and Degrees Report.

The graphic on the cover displays more than a century's worth of PhD production in the US. The number of physics PhD's has fallen sharply during the last seven years. There were 1,157 PhD's conferred in the class of 2000-01, a decline of 5% from the previous year and a cumulative decline of 22% since the recent high of 1,481 in the class of 1994.

Of the three degree categories, doctorate recipients have the largest proportion of foreign citizens among their ranks, totaling 48% in the class of 2001. (Foreign citizens include individuals with either permanent resident status or on temporary visas.)

Figure 5. Master's degrees conferred by type of degree and department, 1983-2001.



AIP Statistical Research Center, Enrollments and Degrees Report.

Table 7. Departments averaging 20 or more physics doctorates per year, classes of 1999, 2000 and 2001.

	Annual Average of PhD's Granted
MA Inst of Tech	41
U of California-Berkeley	34
U of IL-Urbana/Champaign	33
U of Texas-Austin	31
Cornell U (NY)	22
U of Maryland-College Park	22
U of California-San Diego	21
SUNY-Stony Brook (NY)	20
U of Wisconsin-Madison	20

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Figure 6. Projections for the number of PhD's in the classes of 2002 through 2007.

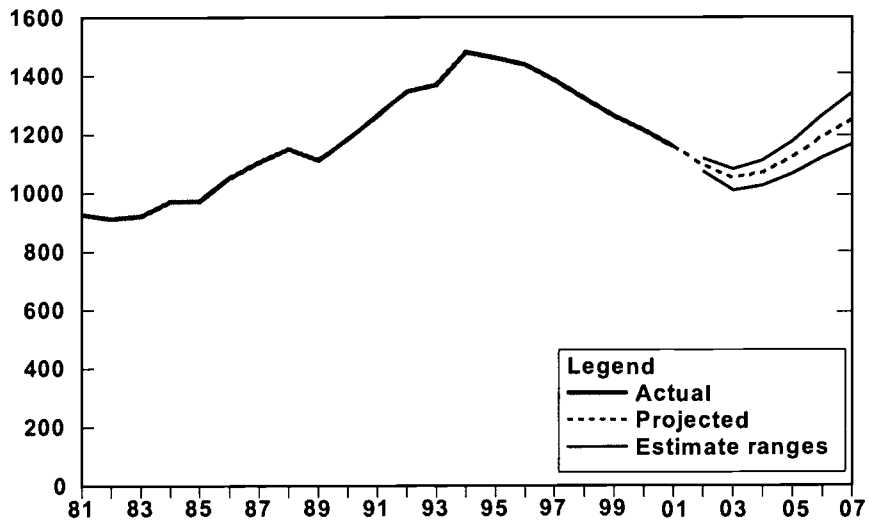

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Table 7 lists the departments that are responsible for producing the largest number of physics PhD's during the last three years. The 9 departments listed represent only 5% of all the doctoral departments, but they awarded 21% of all the PhD's conferred.

PHYSICS DOCTORATE PROJECTIONS

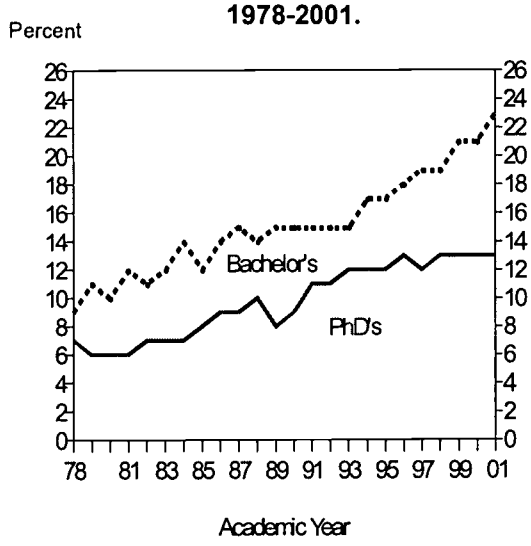
As one can see, physics PhD production has basically never experienced a period of stability. A leveling off of first-year student enrollments in the late 1990's, followed by recent enrollment increases suggest that the current decline in PhD production is coming to an end.

The current decline will not fall to the levels seen in the early 1980's. Using past first-year student enrollment figures and factoring in the time it takes students to earn PhDs, along with the percent of individuals who exit doctoral programs prior to receiving a PhD, we have projected PhD production through the 2006-07 academic year. PhD production is expected to bottom out at around 1,050 in the class of 2003, remain flat for 2004 and begin to rise with the class of 2005 (**see Figure 6**).

WOMEN

The class of 2001 represents yet another all time high for the representation of women at the undergraduate level. During the last few years the representation of women receiving a physics bachelor's degree has been experiencing steady increases, averaging one percent a year for the last eight years. Women represented 23% of the class of 2001, an increase of 2% from the previous year (**see Figure 7**). This increased representation coupled with an increasing number of total physics bachelor's being produced has also greatly increased the absolute number of women receiving undergraduate physics degrees.

Figure 7. Percent of bachelor's degrees and doctorates in physics earned by women, 1978-2001.



Note: A form change occured in 1994 resulting in a more accurate representation of women among physics bachelors. Some of the increase in 1994 only, may be a result of that change.

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In the class of 2001, about 930 women received a physics bachelor's degree. This is a 12% increase in the number of women over the previous year and a 200% increase from the number who received physics degrees in the late 1970's.

The proportion of exiting master's degrees conferred to women has been very similar to that of the undergraduates. Women represented 18% of the exiting master's in the class of 2001, down from 22% the previous year. The representation of women at the doctoral level is a different story. During the same 8-year period that the bachelor's and master's have been increasing, the proportion of women receiving PhD's has remained relatively unchanged at around 13%.

MINORITIES

Hispanic-Americans and African-Americans continue to be seriously under-represented among physics degree recipients (**see Table 8**). African-Americans have historically earned 9-10 physics PhDs per year. However, there has recently been a significant jump in the number. African-Americans earned 18 and 17 physics PhD's during the classes of 2000 and 2001 respectively. The representation of Hispanic-Americans at both the bachelor's and master's level experienced a one percent increase over the previous year. They comprised 4% and 6% of the respective degree classes in 2001. Increases such as these are encouraging, but the under-representation of minorities in physics

Table 8. Number and percent of physics degrees granted to US citizens by minority / ethnic group status, class of 2001.

	Bachelor's		Exiting Master's		PhD's	
	Number	Percent	Number	Percent	Number	Percent
African-American	140	4	34	8	18	3
Hispanic-American	137	4	24	6	10	2
White	3344	87	344	82	527	88
Asian-American	148	4	18	4	37	6
Other	85	1	2	-	7	1
Total US Citizens	3854	100%	422	100%	599	100%

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remains a major concern. Physics has one of the lowest proportions of African-Americans and Hispanic-Americans, regardless of degree level, of all the science fields.

Table 9. Institution's consistently reporting race of students and averaging 3 or more African-American physics bachelor's per year, classes of 1999, 2000 and 2001.

	Annual Average
Xavier U (LA)	11
Lincoln U (PA)	7
Southern U & A&M Coll (LA)	7
Alabama A&M U (AL)	5
Benedict Coll (SC)	4
Hampton U (VA)	4
Morehouse Coll (GA)	4
Grambling St U (LA)	3
Jackson St U (MS)	3
Morgan St U (MD)	3

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The nation's Historically Black Colleges and Universities (HBCU) play a significant role in producing a large proportion of the degrees conferred to African-Americans, regardless of discipline. The 35 HBCUs that have degree programs in physics are responsible for over half of all the physics degrees conferred to African-Americans at each degree level. **Table 9** lists the institutions, all HBCUs, which have recently averaged the greatest number of physics bachelor's degrees to African-American students.

Although not necessarily from specific institutions, Hispanic-Americans receiving physics bachelor's degrees tend to be concentrated in specific geographic locations. Two-thirds (65%) of the 137 Hispanic-Americans receiving physics bachelor's degrees received their degrees either from Puerto Rico or one of three states: California, Florida, and Texas.

The Statistical Research Center is currently completing two detailed reports addressing the representation of Hispanic-Americans and African-Americans within the physics community. They are due to be published in the summer of 2003.

ASTRONOMY

The 70 departments with astronomy degree programs fall into two distinct groups (**see Table 10**). About half are stand-alone departments, devoted strictly to the field of astronomy, while the remaining half are administered in conjunction with a physics program. This year we received responses from all but 8 astronomy departments. It should be noted that some

Table 10. Number of degree-granting astronomy departments by highest astronomy degree offered, academic year 2000-2001.

Department Type	Combined with physics	Separate astronomy	Total
PhD-granting	9	29	38
Master's-granting	2	2	4
Bachelor's-granting	23	5	28
Total	34	36	70

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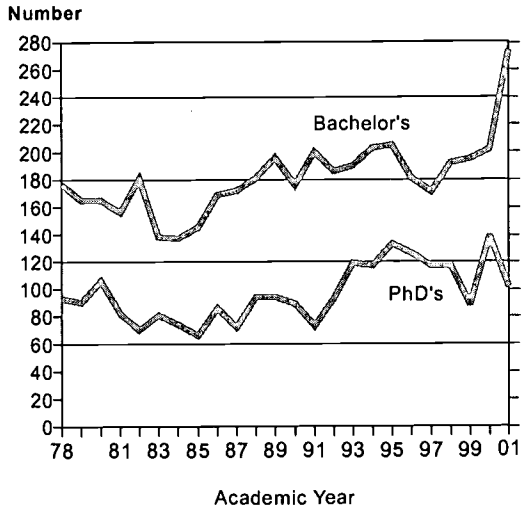
Figure 8. Astronomy bachelors degrees and doctorates awarded in the US, 1978-2001.



Note: The astronomy doctorate totals presented here do not include astrophysics degrees conferred by physics departments. Those degrees are included among the physics totals.

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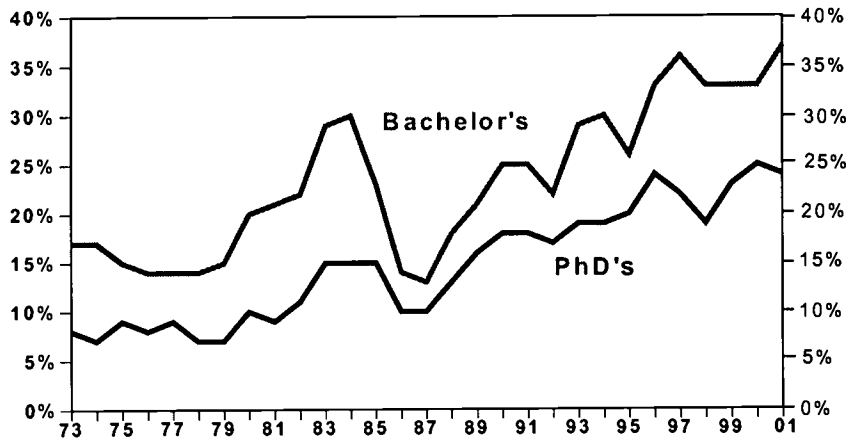
students also receive degrees in astrophysics (primarily at the doctoral level) from stand-alone physics departments. These astrophysics degrees are included in the physics degree totals presented earlier in the report.

Approximately 165,000 students took an introductory astronomy course during the 2000-2001 academic year **(see Table 2)**. About two-thirds of these students took that course in a physics department that had no astronomy degree program. Conversely, one-third took this course at an astronomy degree-granting department even though such departments represent less than 10% of all physics and astronomy departments.

The number of undergraduates receiving astronomy bachelor's degrees in the class of 2001 was 274, a 36% increase over the previous year (**see Figure 8**). This all-time high is the largest single year change in astronomy undergraduate degree production this report series has ever documented. A great deal of this gain is attributable to a sharp increase in the number of women receiving degrees. (**see Figure 9**) While the number of men increased by 20% from the previous year, the number of women shot up over 3 times that rate, increasing by 67%. The small size of the field causes the trend illustrating the proportion of women receiving astronomy degrees to be erratic, but it

Figure 9. Percent of bachelor's degrees and doctorates in astronomy earned by women, 1973-2001.



Note: Percentages are reported using 2-year averages.

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is fairly clear that over time women have increased their representation among astronomy degree recipients.

Table 11. Astronomy departments averaging 7 or more astronomy bachelor's degrees per year, classes of 1999, 2000 and 2001.

	Annual Average of Bachelor's Degrees Granted
U of California-Berkeley	14
Boston U (MA)	12
U of Washington	10
U of Virginia	9
U of Wisconsin-Madison	9
U of Minnesota	8
Pennsylvania St U	8
U of Arizona	7
U of California-Los Angeles	7
Harvard U (MA)	7
U of Massachusetts	7
U of Michigan	7

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To a lesser extent, the jump in astronomy bachelor's degree production is also attributable to an increase in non-US citizens. The number of foreign students earning astronomy bachelor's tripled from 6 in the class of 2000 to 18 in the class of 2001, although in the latter year they still only represent 7% of the total.

Table 11 lists the astronomy departments which granted the largest number of astronomy bachelor's during the last three years. All the departments listed also have a doctoral program, and all but one (UCLA), are stand-alone astronomy programs.

A higher proportion of women and a lower proportion of foreign citizens receive degrees in astronomy at all levels than in physics. There were only 13 master's exiting from astronomy departments in the class of 2001. Of this total, 6 were women and 2 were non-US citizens. The 38 astronomy departments with doctoral programs produced 101 PhD's in the class of 2001. Women comprised almost a quarter (23%) of the new doctorates and foreign citizens made up a third of the degree recipients.

APPENDIX

A1. Trend in astronomy enrollments* and degrees, academic years 1990 to 2002.

Academic Year	Number of astronomy degrees granted: Bachelor's	Exiting Master's	PhD's	Undergraduate astronomy major enrollments: Juniors	Seniors	Graduate astronomy student enrollments: 1st-year	Total
1989-90	176	19	89	223	236	186	842
1990-91	200	25	73	312	284	226	914
1991-92	186	31	93	290	331	175	935
1992-93	190	56**	119	337	348	173	939
1993-94	203	34	117	257	388	180	901
1994-95	205	43	133	269	351	165	905
1995-96	181	44	126	272	361	149	874
1996-97	177	23	117	265	332	155	837
1997-98	192	29	116	252	330	143	777
1998-99	195	23	88	263	340	165	799
1999-00	202	25	139	395	409	187	838
2000-01	274	13	101	391	461	180	809
2001-02				420	478	170	807

* Includes part-time students.

** Thirty-four Master's came from the Arizona Summer Science Institute for science teachers at the University of Arizona.

Note: The astronomy doctorate totals presented here do not include astrophysics degrees conferred by physics departments. Those degrees are included among the physics totals.

AIP Statistical Research Center, Enrollments and Degrees Report.

A2. Trend in physics enrollments* and degrees, academic years 1990 to 2002.

Academic Year	Number of physics degrees: Bachelor's	Exiting Master's	PhD's	Undergraduate physics major enrollments: Juniors	Seniors	Graduate physics student enrollments: 1st-year	Total
1989-90	4898	918	1183	6313	7131	3059	13708
1990-91	4950	806	1264	6445	7115	3278	14065
1991-92	4770	906	1346	6435	7268	3306	14534
1992-93	4800	877	1369	6287	7297	3090	14430
1993-94	4615	1077	1481	6146	7289	2902	14201
1994-95	4263	985	1461	5620	6836	2604	13285
1995-96	4156	959	1438	5335	6489	2462	12596
1996-97	3826	789	1385	5057	6116	2404	11786
1997-98	3821	782	1323	5006	5857	2423	11302
1998-99	3646	671	1262	5026	5593	2417	10971
1999-00	3894	684	1214	5227	5913	2510	10768
2000-01	4091	701	1157	5428	6309	2713**	10978
2001-02				5599	6521	2777	11402

* Includes part-time students.

** A change in wording on the 2001 questionnaire resulted in more accurate data on first-year graduate students. This change was responsible for 3% of the 8% increase in total first-year students between 2000 and 2001.

AIP Statistical Research Center, Enrollments and Degrees Report.

A3. Trend in physics enrollments* and degrees by institution type, academic years 1990 to 2002.

Academic Year	Number of physics degrees granted			Undergraduate physics major enrollments		Graduate physics student enrollments	
	Bachelor's	Exiting Master's	PhD's	Juniors	Seniors	1st-year	Total
			Doctorate-granting institutions				
1989-90	2365	551	1183	2877	3664	2623	12440
1990-91	2376	502	1264	3082	3694	2782	12700
1991-92	2261	518	1346	3057	3729	2831	13118
1992-93	2253	543	1369	3038	3845	2688	13222
1993-94	2203	732	1481	2920	3729	2509	13042
1994-95	2009	665	1461	2648	3453	2209	12173
1995-96	1918	644	1438	2461	3344	2117	11545
1996-97	1746	535	1385	2200	3133	2074	10900
1997-98	1710	516	1323	2223	2899	2127	10432
1998-99	1688	487	1262	2363	2814	2174	10256
1999-00	1871	466	1214	2412	3053	2304	10104
2000-01	1849	491	1157	2565	3270	2431**	10272
2001-02				2684	3399	2480	10622
			Master's-granting institutions				
1989-90	494	367		773	969	436	1268
1990-91	541	304		800	956	496	1365
1991-92	525	388		802	938	475	1416
1992-93	448	334		719	887	405	1208
1993-94	475	345		696	930	393	1159
1994-95	420	320		610	813	395	1113
1995-96	376	315		556	703	345	1047
1996-97	314	254		530	667	330	886
1997-98	320	266		561	636	296	870
1998-99	275	184		478	576	243	715
1999-00	335	218		465	589	206	664
2000-01	323	210		438	574	282**	706
2001-02				443	594	297	780
			Bachelor's-granting institutions				
1989-90	2039			2663	2498		
1990-91	2033			2563	2470		
1991-92	1984			2576	2601		
1992-93	2099			2530	2565		
1993-94	1937			2530	2630		
1994-95	1834			2362	2570		
1995-96	1862			2318	2442		
1996-97	1766			2327	2316		
1997-98	1791			2225	2322		
1998-99	1683			2185	2203		
1999-00	1688			2348	2271		
2000-01	1919			2425	2465		
2001-02				2472	2528		

* Includes part-time students.

** A change in wording on the 2001 questionnaire resulted in more accurate data on first-year graduate students. This change was responsible for half of the increase at PhD institutions and a quarter of the increase at masters institutions.

AIP Statistical Research Center, Enrollments and Degrees Report.

STATISTICAL RESEARCH CENTER - LIST OF LATEST PUBLICATIONS

The Statistical Research Center collects data on the composition and dynamics of the scientific labor force and the education system. Below is a list of the Center's current publications along with a brief description of each. Unless otherwise indicated, single copies can be downloaded for free at www.aip.org/statistics or by writing to:

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2002 Academic Workforce Report** (August 2003)

A detailed analysis of faculty openings and new hires in universities and four-year colleges.

Broadening the Base: High School Physics Education at the Turn of a New Century (August 2003)***

An analysis and interpretation of information collected in a nationwide survey of teachers of physics at the secondary level.

Graduate Student Report: First-Year Students in 1999 and 2000** (January 2003)

A summary of the characteristics, subfields of specialization, sources of support, perception of undergraduate preparation, and career goals for first-year physics and astronomy graduate students.

Initial Employment Report: Follow-ups of 2000 and 2001 Physics and Astronomy Degree Recipients* (Expected Publication Date – November 2003)

A description of the initial employment and continuing education of physics and astronomy degree recipients.

* Published annually
** Published biennially
*** Published quadrennially

Physics Bachelors with Master's Degrees (March 2003)

This report documents the employment patterns of those who earned physics bachelor's degrees in the early 1990s, earned master's degrees in a variety of fields, and were working five to eight years later.

Physics in the Two-Year Colleges 2001-02 (July 2003)

An updated look at faculty background, turnover and curriculum from the 2001-02 Survey of Two-Year college Physics Programs.

Physics Students From Abroad in the Post-9/11 Era (July 2003)

A report on a recent survey of graduate physics departments nationwide. A look at the impact of tightened visa regulations in the post-9/11 era on students from other countries.

2002 Salaries Society Membership Survey Tables ** (April 2003)

Collection of twelve tables each focusing on different aspects of PhD employment. The statistical data are based on salaries reported by U.S.-resident members of AIP's ten Member Societies during October 2002. Tables can be purchased individually for $5.00 each or as a collection for $25.00. Members of AIP's Member Societies and the Society of Physics Students receive a 20% discount. To order visit the AIP iStore at http://store.aip.org/salaries/

Women Physicists Speak: The 2001 International Study of Women in Physics (June 2002)

Findings from an international survey of over 1,000 women physicists from 55 countries. The study was conducted as part of a larger effort carried out by the International Union of Pure and Applied Physics (IUPAP).

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